

REMARKS

In the Office Action, claims 29, 32, 61 and 64 were indicated as allowable, and claims 1-28, 30, 31, 33-60 and 62 were rejected. Applicant thanks the Examiner for indicating the allowability of claims 29, 32, 61 and 64. The language of allowable claim 29 has been added to independent claim 23 from which it directly depends. Accordingly, independent claim 23 and its dependent claims should be in condition for allowance.

By this Reply and Amendment, claims 1, 7, 8, 13, 18, 19, 23, 33, 39, 40, 45, 50, 51 and 55 have been amended; claims 17, 29 and 49 have been canceled without prejudice; and claims 1-16, 18-28, 30-48 and 50-64 remain pending in the present application. The claim amendments are fully supported in the written description and figures of the specification.

Claims 1 and 33 were objected to based on certain formalities. Each of these claims has been amended as suggested by the Examiner, and the objection is believed to be overcome.

Claims 1, 3-6, 9-12, 23, 25-28, 30, 31, 33, 35-38, 41-44, 55, 57-60, 62 and 63 were rejected under 35 USC 102(b) as anticipated by the Robison et al. reference, US Patent No.: 6,435,282. This rejection is respectfully traversed; however independent claims 1, 23, 33 and 55 have been amended to clarify aspects of the claim language.

The Robison et al. reference describes an annular flow safety valve apparatus. The safety valve apparatus comprises a bi-directional self-contained electromechanically operated valve assembly. The assembly utilizes a movable seal mandrel 44 connected to a motor assembly 46 having an electric motor 48. An electronic control assembly 52 has a control circuit 54 connected to motor 48. The control circuit 54 comprises a telemetry circuit 58 which is designed to monitor physical parameters. Electric motor 48 and control circuit 54 are electrically connected to a downhole power source 64. (See column 3, lines 4-22). As further described, the motor assembly and control assembly are preferably self-contained so the safety valve apparatus includes a movable seal, a power source, an electric motor and a control assembly that are

capable of operating in response to predetermined parameters "without need of power or control inputs from the surface". (See column 3, lines 60-66). Accordingly, the Robison et al. reference fails to disclose numerous elements found in the pending claims.

For example, the reference fails to disclose or suggest a safety valve assembly and "a first control line and a second control line coupled to the safety valve assembly and extending to the surface of the well, wherein the safety valve assembly is moved to an open position via hydraulic input through the first control line into a closed position via hydraulic input through the second control line" as recited in amended, independent claims 1 and 33. The Robison et al. reference further fails to disclose or suggest running a temperature sensor downhole with the safety valve assembly and "controlling actuation of the safety valve via hydraulic inputs provided from a surface location" as recited in amended, independent claim 55. Independent claim 23 has been amended to incorporate the language of allowable claim 29. Accordingly, the Robison et al. reference fails to disclose or suggest elements of the subject claims.

Claims 3-6, 9-12, 25-28, 30, 31, 35-38, 41-44, 57-60, 62 and 63 ultimately depend from one of the independent claims discussed above. These dependent claims are patentable over the cited reference for the reasons discussed above with respect to the independent claims as well as for additional, unique elements found in the dependent claims.

Claims 1-9, 13-20, 23-25, 27, 28 and 30 were rejected under 35 USC 102(b) as anticipated by the Rawson et al. reference, US Patent No.: 6,269,874. This rejection is respectfully traversed; however independent claims 1, 13 and 23 have been amended to clarify aspects of the claim language.

The Rawson et al. reference discloses an electro-hydraulic actuation system for a surface controlled subsurface safety valve that is "controllable entirely electrically". (See Abstract). Each embodiment of the invention employs a reservoir, an electronics package, and a solenoid dump valve along with either a motor driven pump or a solenoid plunger pump to move hydraulic fluid at the downhole location. (See, for example, column 2, lines 40-47; column 4, lines 51-67; and column 5, lines 1-10). According to the Rawson et al. reference, an advantage

of the Rawson et al. system is that it maintains the hydraulic fluid reservoir downhole and in proximity to the other components of the system which "avoids the long fluid column to the surface". (See column 1, lines 59-63). Accordingly, the Rawson et al. reference does not disclose or suggest elements of the subject claims.

For example, the reference fails to disclose or suggest a safety valve assembly and "a first control line and a second control line coupled to the safety valve assembly and extending to the surface of the well, wherein the safety valve assembly is moved to an open position via hydraulic input through the first control line into a closed position via hydraulic input through the second control line" as recited in amended, independent claim 1. The reference further fails to disclose or suggest a safety valve assembly with a flapper, a pressure sensor and "an actuator to control movement of the flow tube to move the flapper to selectively open the valve and close the valve, the movement of the flapper to close the valve being controlled by application of hydraulic pressure in a first direction and the movement of the flapper to open the valve being controlled by application of hydraulic pressure in a second direction, wherein the hydraulic pressure is applied from the surface of the well" as recited in amended, independent claim 13. Independent claim 23 has been amended to incorporate the language of allowable claim 29. Accordingly, the Robison et al. reference fails to disclose or suggest elements of the presently pending claims.

Claims 2-9, 14-16, 18-20, 21-25, 27, 28 and 30 ultimately depend from one of the independent claims discussed above. These dependent claims are patentable over the cited reference for the reasons discussed above with respect to the independent claims as well as for additional, unique elements found in the dependent claims.

Claims 11, 12, 21, 22 and 31 were rejected under 35 USC 103(a) as unpatentable over the Rawson et al. reference. This rejection is respectfully traversed. However, claims 11 and 12 ultimately depend from amended, independent claim 1; claims 21 and 22 ultimately depend from amended, independent claim 13; and claim 31 depends from amended, independent claim 23. Accordingly, these dependent claims are patentable over the Rawson et al. reference for the

reasons discussed above with respect to the corresponding independent claims as well as for the additional, unique elements found in these dependent claims.

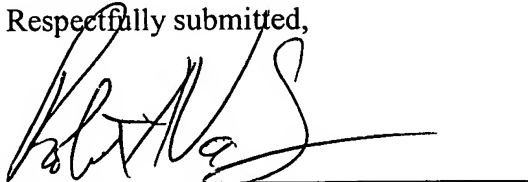
Claims 33-60, 62 and 63 were rejected under 35 USC 103(a) as unpatentable over the Rawson et al. reference in view of the Robison et al. reference. This rejection is respectfully traversed, however independent claims 33, 45 and 55 have been amended to clarify aspects of the claim language.

The Rawson et al. and Robison et al. references, taken alone or in combination, fail to disclose various elements of the subject claims. For example, the references fail to disclose or suggest a safety valve assembly and "a first control line and a second control line coupled to the safety valve assembly and extending to the surface of the well, wherein the safety valve assembly is moved to an open position via hydraulic input through the first control line into a closed position via hydraulic input through the second control line" as recited in amended, independent claim 33. The references further fail to disclose or suggest a safety valve assembly with a flapper, a pressure sensor and "an actuator to control movement of the flow tube to move the flapper to selectively open the valve and close the valve, the movement of the flapper to close the valve being controlled by application of hydraulic pressure in a first direction and the movement of the flapper to open the valve being controlled by application of hydraulic pressure in a second direction, wherein the hydraulic pressure is applied from the surface of the well" as recited in amended, independent claim 45. The references also fail to disclose or suggest running a temperature sensor downhole with the safety valve assembly and "controlling actuation of the safety valve via hydraulic inputs provided from a surface location" as recited in amended, independent claim 55. Accordingly, the cited references fail to disclose or suggest elements of the subject claims.

In view of the foregoing remarks, all pending claims are believed to be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Date: February 5, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert A. Van Someren', written over a horizontal line.

Robert A. Van Someren
Reg. No. 36,038

PO Box 2107
Cypress, TX 77410-2107
Voice: (281) 373-4369